

## Roof System Assessment Report of Wind Uplift Resistance (ISO 17025)

Document Number:	PUB-DRC303964
Publication Date:	2014-10-23
Revised:	2015-07-09
Revaluation Date:	2017-10-23

**Supplier:**



### Mod-Bit PermaBase Dek Duotack Adhered Apply System, Adhered Apply Roofing System (AARS)

#### **Roofing System Summary :**

- Cap sheet membrane: Modified Bituminous membrane or allowable products
- Base Sheet Membrane: Modified Bituminous membrane or allowable products
- Cover board: Concrete board
- Insulation: Polyisocyanurate or allowable products
- Vapour barrier: Membrane or allowable products
- Thermal barrier: Concrete board
- Decking: Steel Deck

- Dynamic Uplift Resistance (DUR) as per CSA A123.21:

Description	Test observation reading	With SF of 1.5
<b>System A</b>	-6.5 kPa (-135 psf)	<b>-4.3 kPa (-90 psf)</b>

*Note :*

#### **Allow products:**

Only equivalent products included into the roofing system's report are admissible.

#### **Optional components:**

Components of the roofing system designated as optional may be included or excluded from the roofing system which will not change the published dynamic uplift resistance (DUR).

#### **Safety factor:**

As required by in the CSA A123.21 Standard, the published dynamic uplift resistance (DUR) are reduced by a safety factor of 1.5 (SF of 1.5)

#### **Admissible wind uplift load calculation:**

An online calculator is available at [www.sigders.ca](http://www.sigders.ca). The user will have to provide the following information:

- building location;
- building geometry;
- building exposure;
- building openings;
- building importance factor.

The calculator will display the allowable design load of the roof's field surface, edges and corners as well as the dimensions of the edge and corner zones.

#### **Technical Advisories:**

Assessment reports must be read in conjunction with technical advisories issued by **exp** Services Inc.

#### **Values**

For this document, the metric values are the standard and values in parentheses are for information only.

#### **Notice**

**Exp** Services Inc. reserve their right to withdraw, without prior notice, the test report performed as per CSA A123.21 Standard.

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## Roofing System's Specific Data:

### Cap Sheet Membrane:

- Allowable products:	<b>Soprema</b>		
	Sopralene Flam 180 GR	Sopralene Flam 250 GR	Soprastar Flam HD GR
	Sopralene Flam 180 FR GR	Sopralene Flam 250 FR GR	Soprastar Flam HD FR GR
	Sopralene Mammouth GR	Sopraply Traffic Cap 560	Sopraply Traffic Cap FR 561
- Attachment mode:	<b>Heat welded</b>		

### Base sheet membrane:

- Allowable product:	<b>Soprema</b>		
	Sopralene Flam 180	Elastophene Flam	Sopraply Base 520
	Sopralene Flam 250		
- Attachment mode:	<b>Heat welded (required a prime Cover board with Elastocol 500)</b>		

### Cover board:

- Allowable products:	<b>Unifix</b>		
	PermaBase Dek		
- Allowable thickness:	Between 6.3 mm (¼ in.) to 15,9 mm (5/8 in.)		
<b>Adhered Attached Pattern</b>	Adhesion mode		Adhesive spacing
<b>For System A result</b>	<b>Ribbons</b>	<b>305 mm (12 in.) o.c.</b>	
- Adhesive type:	Duotack		
- Adhesive supplier:	<b>Soprema</b>		

### Insulation:

- Allowable products:	<b>Soprema</b>		
	Sopra-Iso	Sopra-Iso +	
	<b>Atlas Roofing Corp.</b>		
	ACFoam II	ACFoam III	ACFoam IV
	<b>Johns Manville</b>		
	ENRGY 3	ENRGY 3 CGF	
	<b>Hunter Panels</b>		
	H-Shield	H-Shield CG	
- Allowable thickness:	Between 25 mm (1 in.) to 203 mm (8 in.)		
<b>Adhered Attached Pattern</b>	Adhesion mode		Adhesive spacing
<b>For System A result</b>	<b>Ribbons</b>	<b>305 mm (12 in.) o.c.</b>	
- Adhesive type:	Duotack		
- Adhesive supplier:	<b>Soprema</b>		

### Vapour Barrier:

- Allowable products:	<b>Soprema</b>		
	Elastophene PS 2.2 mm	Sopralene 180 PS 3.5 mm	
- Attachment mode:	<b>Heat welded (required a primer on allowable thermal barrier or concrete deck with Elastocol 500)</b>		

### Or optional Vapour Barrier:

- Allowable products:	<b>Soprema</b>		
	Sopravap'R	Sopralene Stick Adhesive	
- Attachment mode:	<b>Adhered</b> (Primer required on allowable thermal barrier wood deck and concrete deck with Elastocol stick or Elastocol Stick Zero)		
- Attachment type:	Self-adhering membrane		



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### Thermal barrier:

- Allowable products:	<b>Unifix</b>		
	PermaBase Dek		
- Allowable thickness:	Between 6.3 mm (¼ in.) to 15.9 mm (5/8 in.)		
<b>Adhered Attached Pattern</b>	Adhesion mode		Adhesive spacing
<b>For System A result</b>	<b>Ribbons</b>	<b>305 mm (12 in.) o.c.</b>	
- Adhesive type:	Duotack		
- Adhesive supplier:	<b>Soprema</b>		

<b>Decking:</b>	
- Type:	Galvanized construction steel or coated with an aluminum/zinc alloy or PVC in accordance with ASTM A653, ASTM A792, ASTM A1008 or CSSBI 10M Standards.
- Supplier:	Generic
- Thickness:	0.76 mm (0.03 in.) minimum, with a yield strength of 230 MPa (33 ksi) and a tensile strength of 310 MPa (45 ksi) commonly defined as being of a 22 gauges minimum thickness.
- Attachment method:	The deck's fastening to the supporting structure must be strong enough to resist wind uplift loads (adjusted as per NBC requirements).
- Fastening uplift resistance (CSA S136.F04):	2.09 kN (470 pf)
- -Equivalence:	Steel deck thickness of 18 to 22 gauges or wood deck or concrete deck with pullout resistance equal or higher than the Fastening uplift resistance specified above.